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ABSTRACT

This document is one of the 5 sections of the Data Element Dictionary developed as part of the WICHE Management Information Systems (MIS) Program. The elements in this section apply to both the current and historical data concerning finance. The purpose of the WICHE MIS Program is to make it possible to derive data which will be truly comparable for interinstitutional comparisons, while allowing institutional autonomy in such matters as coding and file structure. One of the major purposes of this section of the Dictionary is to obtain longitudinal data depicting changes in characteristics over a period of time. The criteria for inclusion of data elements are: (1) necessary for completion of Higher Education General Information Survey (HEGIS); (2) likely to be needed for the Student Flow Model, cost exchange procedures, and the Resource Requirements Prediction Model; (3) necessary to link operational files together for the derivation of information; and (4) basic to institutional record keeping. The data elements are: (1) fund group; (2) source of funds; (3) organizational unit; (4) account number; (5) program identification; (6) functional classification; (7) object classification; and (8) dollar amount. A number, title, description, and comments define each data element. In addition, the anticipated utility of each element is indicated. After review of this edition, a second is planned. (AF)

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. . . to increase educational opportunities for westerners.
. . . to expand the supply of specialized manpower in the West.
. . . to help universities and colleges improve both their programs and their management.
. . . to inform the public about the needs of higher education.

The WICHE Management Information Systems Program was proposed by state coordinating agencies and colleges and universities in the West to be under the aegis of the Western Interstate Commission for Higher Education. The MIS Program proposes in summary:

To design, develop, and encourage the implementation of management information systems and data bases including common data elements in institutions and agencies of higher education that will:

- provide improved information to higher education administration at all levels.
- facilitate exchange of comparable data among institutions.
- facilitate reporting of comparable information at the state and national levels.

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DATA ELEMENT DICTIONARY: FINANCE

A Technical Report Concerning Finance Related Data Elements in the WICHE Management Information Systems Program

FIRST EDITION

Technical Report 12

Prepared by
Charles R. Thomas

in cooperation with

Members of the Data Elements Task Force

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DATA ELEMENT DICTIONARY

Finance Related Elements Section

FIRST EDITION

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INTRODUCTION

This document is the first edition of the Finance Related Elements Section of the DATA ELEMENT DICTIONARY developed as part of the WICHE Management Information Systems Program. The Elements in this section apply to both current and historical data concerning finance.

The foundation of the WICHE MIS Program will be a body of uniform data elements which all participating institutions will use to some degree in building their data base. Compatibiltiy of information exchanged across institutional lines can be achieved only with uniformity of the data elements from which all subsequent data and information will be derived. Hence, identification of the discrete data elements which will be incorporated in the data bases of institutions participating in the WICHE MIS Program is an early developmental task of major importance.

The Finance Related Elements Section of the DATA ELEMENT DICTIONARY is the fifth of five sections which will be included in the total dictionary. In order to place the Finance Related Elements Section in its proper perspective, all of the DATA ELEMENT DICTIONARY Sections are listed below.

I: Student Related Elements
II: Staff Related Elements
III: Facilities Related Elements
IV: Course Related Elements
V: Finance Related Elements

Earlier publications indicated a sixth section dealing with data elements related to major equipment. This section has been incorporated into the Facilities Related Elements Section. The Course Related Elements Section was previously referred to as the Curricular Related Elements Section.

The five sections of the DATA ELEMENT DICTIONARY are not intended to represent specific institutional files. Appendix B contains further comments on file structures.

The Finance Related Elements Section of the DATA ELEMENT DICTIONARY contains data elements that identify summarized financial information important to HEGIS reporting, Cost Exchange and Modeling. The transactional data elements necessary for the many operational data systems have not been identified in this preliminary draft.

The categories listed for the Finance Related Data Elements are based on and are compatible with those recommended in the College and University Business Administration handbook published by the American Council on Education in 1968. This publication is not a replacement for existing handbooks on financial procedures for institutions of higher education. The finance related data elements identified herein will be needed for participation in WICHE MIS Program.

This document has been forwarded to The National Association of College and University Business Officers (NACUBO) for review by their committees. The second edition of the Data Element Dictionary will develop more precise category definitions and suggested coding structures. The WICHE Management Information Systems Program intends to work with NACUBO and other national financial organizations to assure that the Data Element Dictionary is compatible with the general aspects of college and university financial practices. Institutional members of NACUBO have served on task forces and committees that have worked with the MIS Program in the preparation of this section of the Data Element Dictionary. Since the usefulness of the Dictionary is measured in terms of its acceptance,

the task force for the second edition will include representatives of the higher education financial community.

The Finance Related Data Elements presented in this edition are not fixed. It is anticipated that as analytical models and formulae are constructed for use in the WICHE Management Information Systems Program, additional data elements may be needed, and some of those now identified may be eliminated from the list. The data base and the analytical models are inextricably linked together and neither the data base nor the models can be made independent of one another. It is reasonably safe, however, to assume that most of the Finance Related Elements listed in the first edition will remain in furure editions of the DATA ELEMENT DICTIONARY.

This edition of the DATA ELEMENT DICTIONARY presents definitions of data elements important to the development of the WICHE MIS Program. Derived data elements have not been included when the basic elements used to compute the derived element are present. The criteria for inclusion of data elements are:

1. Necessary for completion of the Higher Education General Information Survey (HEGIS).
2. Likely to be needed for Cost Exchange Procedures.
3. Likely to be needed for the Student Flow Model.
4. Likely to be needed for the Resource Requirements Prediction Model.
5. Necessary to link operational files together for the derivation of information.
6. Basic to institutional record keeping.

The Finance Related Elements identified in this publication are not intended as a complete list of all data elements an institution will need for its management and reporting purposes. Most colleges and universities

will have additional management information needs which will require unique data elements. Further, routine operations of institutions will require data elements not included in this Dictionary. No data element dictionary can be expected to provide a list of items which would be exhaustive in the context of unique data needs of institutions. Therefore, most institutions will be able to identify finance related data elements, in addition to those listed in the Dictionary, which they would wish to or must collect for their own purposes.

A second edition of the DATA ELEMENT DICTIONARY is planned. This second edition will incorporate changes resulting from (1) reactions by the higher education community to the first edition, (2) early experience with WICHE MIS Models, and (3) additional efforts by the MIS Staff in the area of higher education information systems. The second edition will also be expanded to include technical information such as suggested code structures, detailed category definitions, and programming aids.

Dictionary Organization and Format

The numbers attached to the Finance Related Elements identified in this section of the Dictionary are intended only to facilitate identifications and locations of the elements and have no implication for standard coding practice. Also, the lettered categories indicated for elements are not intended to imply any coding structure.

Although the DATA ELEMENT DICTIONARY deals with elementary data items, certain data elements must be appropriately coded to establish a relationship between files for the derivation of information for analytical purposes. These "linking" elements are identified in the comments column of the Dictionary. An example of this situation is the Organizational Unit (element 003) in this section of the Dictionary. This data element is used to associate information about specific organizational units from financial files with information about the same organizational units from other institutional files.

In order to define each data element, the Dictionary provides (1) a number, (2) a title, (3) a description and (4) comments needed for further clarification. In addition, the publication indicates the anticipated utility of each element. These indications must be preliminary at this time since the Cost Exchange Procedures and the Planning Models are not yet completed.

Key to Columns Used in This Dictionary

Number Column -- Number for identification of specific elements with a structure to indicate category, as explained earlier. (The numbers are not intended to be a standard coding scheme).

Title Column -- A brief identification for the data element.

Comments Column -- Additional information as may be needed to further define the data element, justify its inclusion, or identify its relationship to other elements.

USES Columns:

HEGIS -- "X" in this column indicates that this element is needed for the compilation of information for the Higher Education General Information Survey (HEGIS report).

Level III -- Cost Exchange "X" in this column indicates that this element is likely to be needed for exchange of comparable cost information between participating institutions (associated with WICHE MIS Level III participation).

Level IV -- Models "P" in this column indicates that this element is likely to be needed for the WICHE MIS Resource Requirements Prediction Model (RRPM-1)

"F" in this column indicates that this element is likely to be needed for the WICHE MIS Student Flow Model.

"S" in this column indicates that this element is likely to be needed for a future WICHE MIS simulation model.

(This column is associated with WICHE MIS Level IV participation)

DATA ELEMENT DICTIONARY

FINANCE RELATED ELEMENTS

Data Element Index

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HEGIS

008	Dollar Amount	14
006	Functional Classification	12
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Cost Exchange (Level III)

004	Account Number	11
008	Dollar Amount	14
006	Functional Classification	12
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Number	Name	Model	Page
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002	Source of Funds	P	9

NUMBER	TITLE	DESCRIPTION	COMMENT	USES		
				HEGIS	LEVEL III COST EXCHANGE	LEVEL IV MODELS
001	Fund Group	A code to identify an independent fiscal and accounting entity with a self balancing set of accounts. This code should be structured to allow grouping of funds by the following categories: a) Current funds (General, Restricted, and Auxiliary) b) Loan funds c) Endowment and similar income d) Annuity and life income funds e) Plant funds f) Agency funds.	Usual fund groups are identified in College and University Business Administration. Institutions will usually have more detailed categories within the listed groupings.	X	X	

NUMBER	TITLE	DESCRIPTION	COMMENT	USES		
				HEGIS	LEVEL III COST EXCHANGE	LEVEL IV MODELS
002	Source of Funds	A code to identify a source of funds for a particular transaction. Institutional coding should be structured for aggregation to these major categories. a) Federal governmental agencies (including indirect cost recovery) b) State governmental agencies c) Local governmental agencies d) Student tuition and fees e) Endowment income f) Private sources g) Auxiliary enterprises h) Organized activities related to academic departments i) Miscellaneous sources (e.g. institutional sales and/or services) j) Borrowed funds.	Institutions may have more detailed categories within the listed groupings. Funds received for educational and general purposes, student aid and capital programs should be separated.	X	X	P

NUMBER	TITLE	DESCRIPTION	COMMENT	USES		
				HEGIS	LEVEL III	LEVEL IV
					COST EXCHANGE	MODELS
003	Organizational Unit	Institutional code for the organizational unit. May include an institutional abbreviation for the unit.	This data element is a linking element used to associate organizational unit data with other sections of the DATA ELEMENT DICTIONARY. The code should be structured to identify the organizational entity within the institutional heirarchy, i.e. campus; school/college or major administrative unit; academic or administrative department or institute. This element can be used for internal modeling and is needed to derive data for Level IV models. It is unlikely that institutions will exchange information about Organizational Units, however, this data element is needed to derive cost information for exchange.		X	P

FINANCIAL RELATED ELEMENTS

NUMBER	TITLE	DESCRIPTION	COMMENT	USES		
				HEGIS	LEVEL III	LEVEL IV
					COST EXCHANGE	MODELS
004	Account Number	A code for recording and summarizing financial transactions.	This identification may be used to link to the WICHE MIS Program Classification Structure. It is not anticipated that this information will be exchanged, however, this data element is needed to derive cost information for exchange.		X	P
005	Program Identification	A code to identify a collection of integrated activities organized to achieve a specific set of objectives.	See WICHE MIS Program Classification Structure for detailed definition.		X	P

NUMBER	TITLE	DESCRIPTION	COMMENT	USES		
				HEGIS	LEVEL III COST EXCHANGE	LEVEL IV MODELS
006	Functional Classification	A code to group current fund expenditure items according to the purpose for which costs are incurred. Categories are: a) Instruction and departmental research b) Organized activities related to academic departments c) Sponsored research d) Other separately budgeted research e) Other sponsored programs f) Extension and public service g) Libraries h) Student services i) Plant operation and maintenance j) General administration k) Staff benefits l) General institutional expense m) Student aid n) Auxiliary enterprises.	These categories are identified in College and University Business Administration, and historically have been the categories used for HEGIS reporting.	X	X	

FINANCIAL RELATED ELEMENTS

NUMBER	TITLE	DESCRIPTION	COMMENT	USES		
				HEGIS	LEVEL III COST EXCHANGE	LEVEL IV MODELS
007	Object Classification	A code to classify expenditures, e.g.: a) Salaries and wages b) Staff benefits c) Contract services (internal and outside) d) Supplies e) Travel f) Equipment g) Student Aid, grants, and subsidies given h) Debt service and redemption i) Land, buildings, and improvements.	Institutions may have further breakdowns to satisfy unique financial reporting requirements. *HEGIS requirements for selected object classification data has varied from year to year.	X*	X	P

FINANCIAL RELATED ELEMENTS

NUMBER	TITLE	DESCRIPTION	COMMENT	USES		
				HEGIS	LEVEL III COST EXCHANGE	LEVEL IV MODELS
008	Dollar Amount	The quantifiable measure of financial transactions or summaries of transactions as expressed in U.S. dollars.		X	X	P

APPENDIX A

Development of the DATA ELEMENT DICTIONARY

All sections of the DATA ELEMENT DICTIONARY were developed in cooperation with the WICHE MIS Data Element Task Force. The members of the Data Element Task Force are listed below:

Name and Position	Institution/agency
Mr. J. Spencer Carlson Director, Office of Student Services	University of Oregon
Mr. Roger M. Emanuel Coordinator, Models and Simulation	University of California
Mr. James Farmer Director, Information Systems	California State Colleges
Dr. Parker Fowler ADP Systems Coordinator	Colorado Commission on Higher Education
Mr. R. Keith Martin Director, Management Systems Department	University of Washington
Dr. Keith Smith (Dec. 1968 to Aug. 1969) Associate Director	Board of Higher Education State of Illinois
Mr. David Nyman (Sep. 1969 - Present) Assistant Director for Data Systems	Board of Higher Education State of Illinois
Mr. George J. Turner Director of Information Systems	University of California

In addition to the efforts of the Data Element Task Force, the WICHE MIS Analytical Studies Task Force also reviewed each section of the DATA ELEMENT DICTIONARY. This group has responsibility for conceptualizing the models and formulae which will use the basic data elements to produce derived data and information important for institutional management. Members of the Analytical Studies Task Force are listed below:

Name and Position	Institution/agency
Dr. Robert Adams Professor of Economics	University of California at Santa Cruz
Mr. James Farmer Director, Information Systems	The California State Colleges
Mr. John Keller Director of Analytical Studies	University of California
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Mr. Gordon Osborn Director of Analytical Studies	State University of New York
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Mr. James Ryan Vice President for Planning and Budgeting	University of Washington
Dr. Martin Zeigler Associate Provost	University of Illinois

Each section of the DATA ELEMENT DICTIONARY was published and distributed in preliminary draft form. The fourteen participating states held reviews of the preliminary draft with institutions in their state. The state representatives then met for a regional review to summarize comments

on the Dictionary. The fourteen state representatives for the regional review of the Finance Related Elements section were:

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APPENDIX B

Comments on File Structure

Some educators have expressed concern that the development and widespread use of uniform data systems will destroy institutional autonomy with regard to coding and file structure. The WICHE MIS Program is designed to allow institutional autonomy in such matters and, at the same time, to make it possible to derive data which will be truly comparable for interinstitutional comparisons. WICHE has published a technical report entitled, "Concepts Underlying Compatibility[1]," which specifically speaks to this point.

In so far as this section of the DATA ELEMENT DICTIONARY is concerned, the elements are listed without reference to how they should be stored in a data system. No attempt has been made to define standard codes, field formats, or file structures, and the listing of items in this section of the Dictionary is in no way meant to imply that these elements necessarily must be kept in a specific file.

The major purpose of collecting some of the data elements included in this section of the Dictionary is to obtain longitudinal data depicting changes in characteristics over a period of time. For this reason, several of the elements will have to be stored in historical files as updated versions of the elements are collected. The precise method of storage for such historical data is considered by WICHE to be an institutional prerogative. It is only necessary that institutions participating at the various levels be able to produce the required longitudinal data when the need arises.

The WICHE MIS Program anticipates further publications dealing with suggested code structures and file formats to aid institutions on the threshold of the development of data systems.

[1]Dr. Ben Lawrence, "The Concepts Underlying Compatibility in the WICHE Management Information Systems Program," Compatible Management Information Systems. Boulder, Colorado: Western Interstate Commission for Higher Education May, 1969.

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